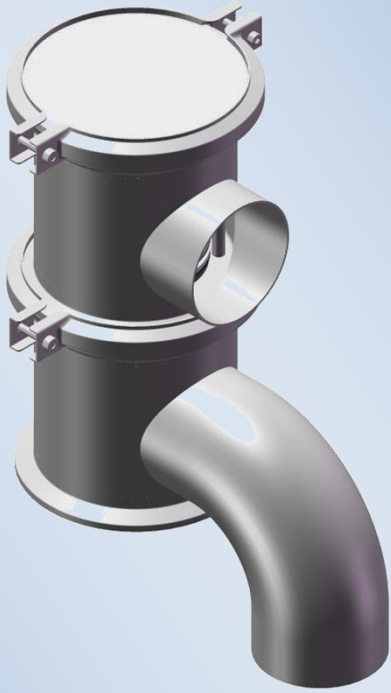
Pressure and/or vacuum valve, DN40 to DN100

BOG



Instructions

Reference: BOG_NOT_EN

Version D

SERVINOX

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1 INTRODUCTION

1.1. The manufacturer

SERVINOX is a specialist, making process equipment for the brewing, food, cosmetic and chemical industries.

Skill and knowledge about process equipment:
In areas such as the protection of tanks, sampling, injection of gas in liquids, scouring or cleaning pipes with patented products.

SERVINOX is certified ***ISO 9001: 2015*** and makes products complying with the following applicable standards and directives:

- Pressure Equipment Directive ***(PED) 2014/68/EU***
- European Directive concerning Devices for Use in Explosive Atmospheres ***(ATEX) 2014/34/EC***
- Hygienic standard for manufacturers US 3A

We are an active member of the association ***EHEDG France*** (hygienic standard for European manufacturers).

1.2. Instructions

To ensure the integrity of the device and the safety of people, you should be aware of the information contained in these instructions before installing and using the device.

Depending on the installation and the fluid, the specific directives and regulations apply, and should be complied with.

In addition to these instructions, the general instructions for safety at work and protection should be applied. The regulations concerning the protection of the environment must also be followed.

1.3. About the equipment

With the BOG valve device, you can choose your needs for tank safety under pressure and vacuum.

Safety accessory to fit on a tank whose ***service pressure is under or equal to 0.5 bars (not concerned by the directive 2014/68/EU).***

This notice gives the instructions for using this low-pressure safety valve.

1.4. Signs

If you have difficulties these instructions cannot resolve, you should ask for further information from the manufacturer or from the equipment distributor.

It is essential to mention the SERVINOX order and/or the serial/production order number, beginning with SVX, for all special requests (spare parts, etc).

2 SAFETY INSTRUCTIONS

This technical manual contains basic instructions that should be followed. It is therefore essential to read it before installation and commissioning.

2.1. Indications and symbols

The following pictograms are designed to draw your attention to important points relating to the safety of people and the integrity of the device:

SYMBOL	DEFINITION
	Direct danger for people
	Possible damage to the product or its environment
	Useful information and application guidelines
	Minimum number required for certain operations. (The number of characters in the pictogram indicates the minimum number of persons).
	Minimum technical skill level. (The number in red indicates the minimum level required).

Some jobs require special technical skills and qualifications, such as for maintenance repairs or work on electrical equipment.

Three levels specify the required technical skill (knowledge of the equipment concerned, experience, training, etc):

	WORKER'S PROFILE	QUALIFICATIONS
Level 1	**End user** with no technical knowledge	**Default level** if the skill pictogram is not present. Permits only **ordinary use and routine maintenance**.
Level 2	**Experienced professional**	**Trained and experienced - knowing the equipment and the technologies used**.
Level 3	**The manufacturer's personnel** / expert of the product	**Work reserved for the manufacturer** of the documented device.

2.2. Safety of workers

Installation, test, adjustment, maintenance and replacement should be performed:

- By qualified persons
- Following the recommendations and guidelines given in these instructions
- Complying with the arrangements safety at work at work, procedures and resources of the fitter, and the legal notifications for the prevention of accidents, especially those concerning electrical installations.

Not following these safety instructions can result in the loss of all right to claim damages.

2.3. Intended use

Correct utilisation

In the certification documents, check that the device chosen is right for its intended use.

How it works

BOG valves are elements of safety for protecting a tank against risks of collapse and/or overpressure. The equipment is available in several models according to your need:

TYPE	VACUUM	PRESSURE	VACUUM COLLECTOR	PRESSURE COLLECTOR
A	X	X	X	
B	X	X	X	X
C		X		
D		X		X
E	X		X	

Incorrect utilisation

The device must not be used for any other purpose other than its intended use. The manufacturer cannot be held responsible in case of incorrect use.

The equipment must not be used beyond the following operating limits:

PARAMETER	LIMITS
Pressure - MAXIMUM	< 0.5 bar
Vacuum - MINIMUM	-2 mbar
Temperature - MINIMUM/MAXIMUM	1° / 120°C

2.4. Breakdown of the risks

DANGER / RISK			
	Hot fluid	**Very hot surface**	**Aggressive fluid**
HARM	Burns	Burns	Burns
PREVENTION			
	Garments, goggles, suitable gloves	Suitable gloves	Gloves, goggles, suitable mask

3 TECHNICAL SPECIFICATIONS

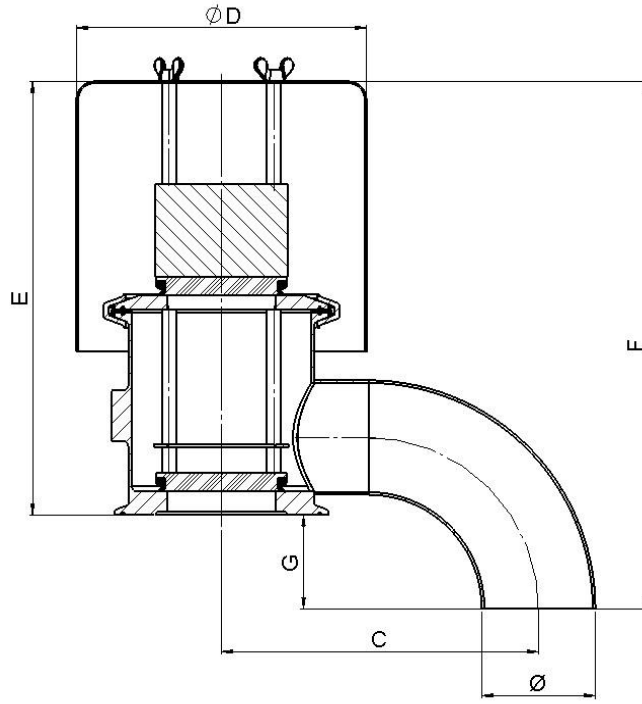
3.1. Standard version

Specifications

SPECIFICATIONS	SERVINOX PROPOSAL
Connections	End-piece to be welded, male, female, clamp, flange
Vacuum calibration BG: A, B, E Weight operated Spring operated	 2 to 50 mbar 60 to 490 mbar
BG **calibrated pressure**: A, B, C, D Weight operated Spring operated	 2 to 50 mbar 60 to 490 mbar
Service temperature	+1°C to +120°C
Materials: • Part in contact with the product • Other parts • Seals • Valves	 Stainless-steel 1.4404 (316L), PTFE Stainless-steel 1.4307 (304L). NBR, EPDM, FKM, MVQ USP class VI Stainless 316L, PTFE, PTFE +15% Graphite

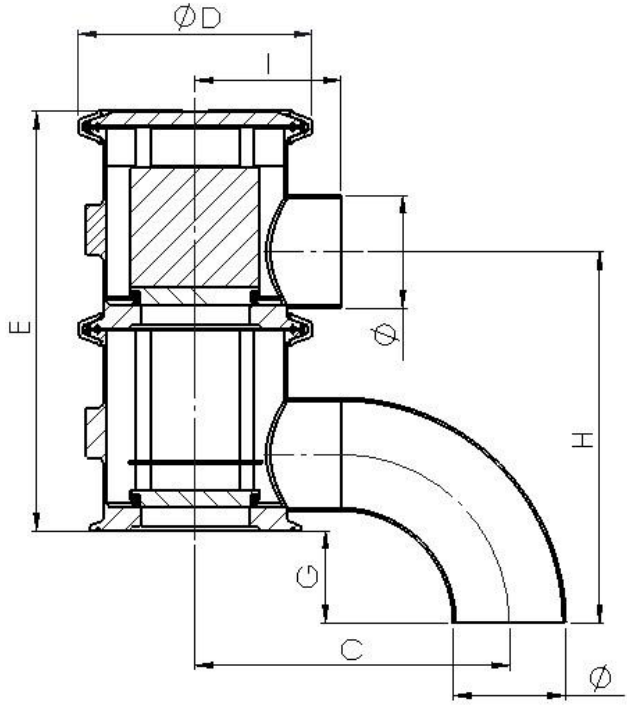
Standard dimensions BGA

SIZES	DN38	DN40	DN63.5	DN65	DN100
C	115	115	177	177	212
D	162	162	162	162	325
E	204	204	240	240	311
F	203	215	292	312	385
G	26	38	52	72	74
Ø	38x1.25	41x1.5	63.5x1.6	70x2	104x2



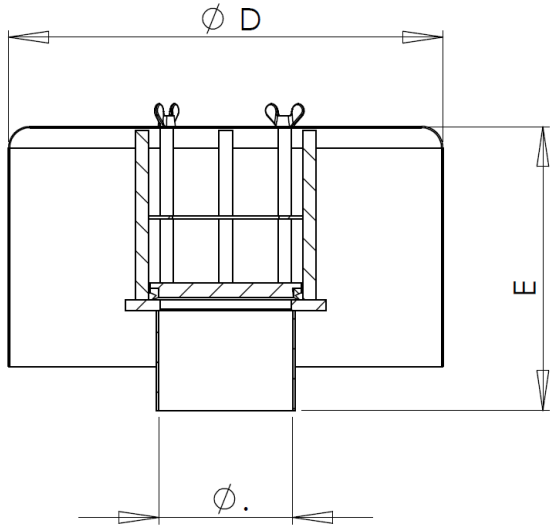
Standard dimensions BGB

SIZES	DN38	DN40	DN63.5	DN65	DN100
C	115	115	177	177	212
D	103	103	132	132	195
E	204	204	240	240	311
G	26	38	52	72	74
H	156	167	207	227	313
I	58	69	82	102	112
Ø	38x1.25	41x1.5	63.5x1.6	70x2	104x2



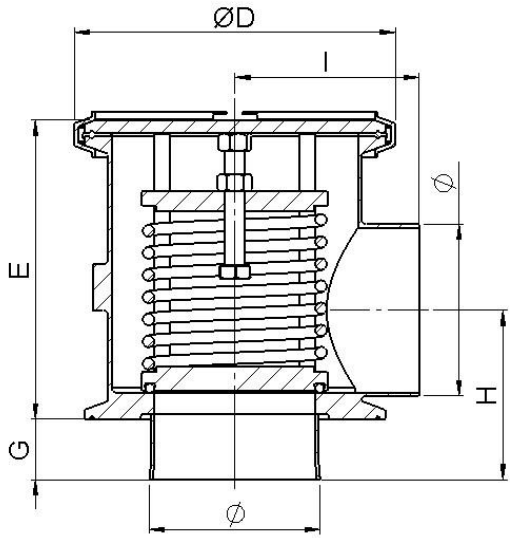
Standard dimensions BGC

SIZES	DN38	DN40	DN63.5	DN65	DN100
D	162	162	162	162	325
E	125	125	180	180	213
Ø	38x1.25	41x1.5	63.5x1.6	70x2	104x2



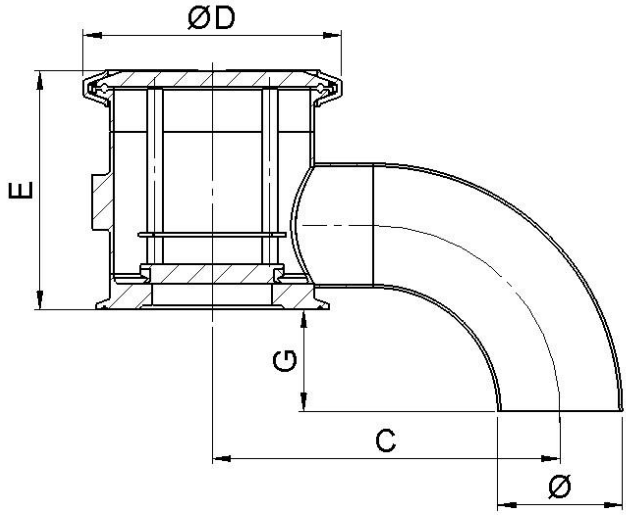
Standard dimensions BGD

SIZES	DN38	DN40	DN63.5	DN65	DN100
D	103	103	132	132	195
E	105	105	122	122	181
G	23	23	30	30	37
H	54	54	73	73	103
I	58	69	82	102	112
Ø	38x1.25	41x1.5	63.5x1.6	70x2	104x2



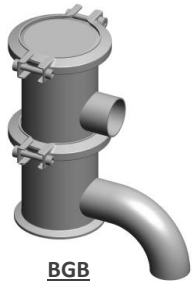
Standard dimensions BGE

SIZES	DN38	DN40	DN63.5	DN65	DN100
C	115	115	177	177	212
D	103	103	132	132	195
E	105	105	122	122	181
G	26	38	52	72	74
Ø	38x1.25	41x1.5	63.5x1.6	70x2	104x2



View of the device

BGA



BGB

BGC

BGD

BGE

3.2. Options

- Cleaning tube
- Detection of position on vacuum valve
- Drip / insect collector
- Sterile air supply to the body
- Forced opening on the vaccum side with or without detection
- heating system

3.3. ATEX option

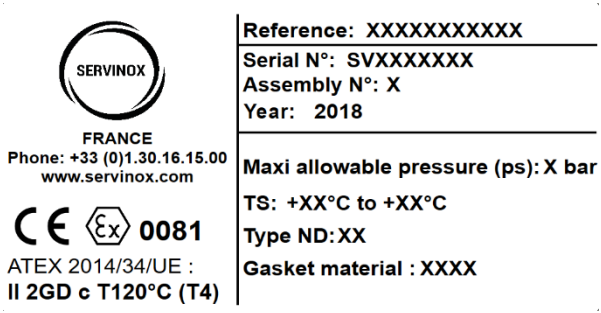
ATEX version 2014/34/EC , areas 1 & 21, gas and dust.

This device is intended for use in surface installations (group II).

The protection level of category 2 is suitable for normal use and frequently occurring disturbances for which malfunctions are normally taken into account. This equipment is for use in areas in which explosive atmospheres caused by mixtures of air and gas (G), vapours, mist or mixtures of air with dust (D), are likely to occur.

The maximum surface temperature is the temperature of the fluid.

This valve of type BOG is suitable for ATEX areas 1 and 21; it has a Servinox sticker similar to the model below:



4 COMMISSIONING

4.1. Transport/ Reception/ Handling

Upon receipt, check:

- that ***the package is in good condition***
- that the device ***is delivered as ordered***
- that the device ***has not been damaged***

If the device is damaged, it must not be fitted on the installation. Contact the manufacturer or your distributor.

4.2. Storage

If the device is not fitted immediately after delivery, it should be stored ***carefully***.

It should be stored in its original packaging, in a covered area, with protection against dirt, rain, snow, insects and away from shock.

The safe storage temperature is between 5°C and 40°C, with relative humidity of the air < 50%.

If the device is stored at negative temperatures, the resistance of the materials to cold should be taken into account (e.g.: the seals).

If storage is for longer than one year, the seals need to be replaced before commissioning

4.3. Installation

General

Before any utilisation of the equipment, the user must visually verify good condition: absence of corrosion, bits of packaging.

If the fluid is harmful, inflammable, toxic, etc, fit the installation with discharge pipes going into a safe place.

Also, you are advised to check the compatibility of these products with the seals and materials before using them.

The workers

The work described below should be carried out by qualified and experienced persons.

The personnel must be fitted with gloves, helmet, and safety shoes.

Transport wedge

It is essential to remove the transport wedge if a pressure or vacuum calibrated weight is used.

Do not open the valve if a calibrated spring is used.

Connections

The free extremity of the elbow is the part of the valve to connect on the tank. If a valve is to be welded, you should remove the valve body only (Ref.1).

The device should be welded to the tank by qualified persons following the regulations in force in the country of installation. The weld must not contain impurities and should be carried out hygienically.

After all welding and/or polishing work, the device should be cleaned of all residues, dust, etc.

- For the connection to the tank: the valve should be installed in ***vertical position with a slope of about 1%*** towards the tank for discharging the solutions found in the valve.
- ***The connection tubes must have interior and exterior diameters identical to the valve.***

Cleaning tube

According to the maximum surface of the equipment to be sprayed, the cleaning tube is equipped with a series of 13 calibrated holes (Ø1,8mm) appropriately oriented. Because of the small size of the equipment, blind zone and ball cleaning is ensured by surface runoff and rebound.

The cleaning tube connection is a mini clamp DN10 (Ø exterior clamp 34mm).

The spray ball is available with 3.2mm diaphragm for DN 40, 65 and 100.

CAUTION FOR USE:

The spray ball must be used for clear liquid products from group 2 (see article 9 of European directive no. 2014/68/EU).

The maximum working pressure is 6 bars and the maximum working temperature is +120°C.

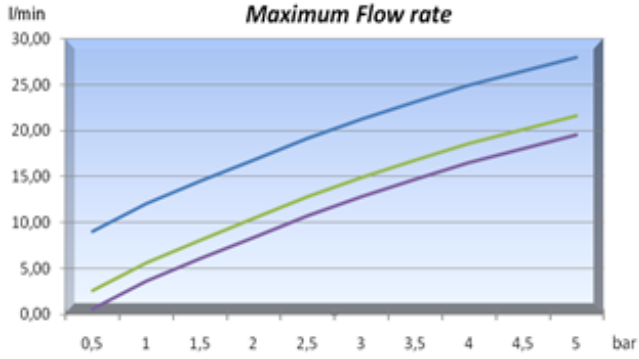
It is also designed to be used with saturated steam.

Operating pressure: 0,5 to 5 bar

Operating temperature: +1°C to +120°C

Recommended operating pressure and flow rate:

Safety valve size (mm)	DN40	DN65	DN100
Pressure (bar)	1		
Flow rate (m²/h)	0,2		
Flow rate (l/min)	3.6		

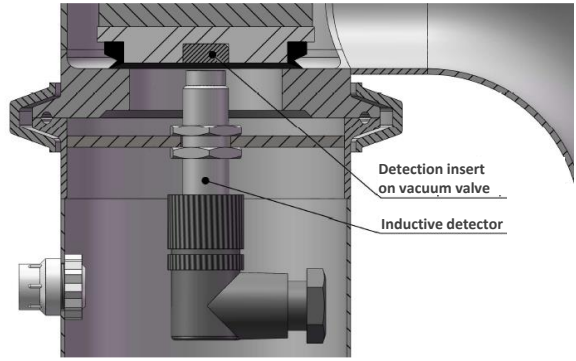


WITHOUT DIAPHRAGM
WITH Ø4mm DIAPHARGM
WITH Ø3.2mm DIAPHRAGM

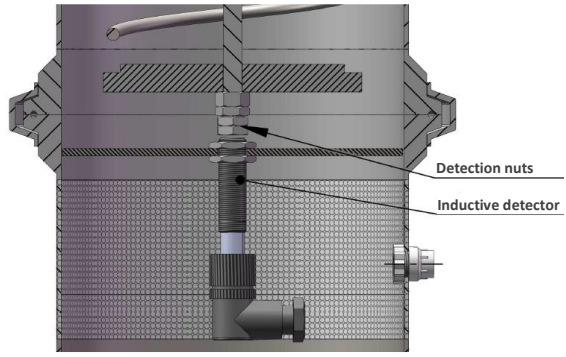
Connection of vacuum opening detector

The vacuum detector must only be adjusted with pressurised equipment.

If the valve is fitted with a vacuum part weight operated, the vacuum valve has a stainless insert for the detection.



If the valve is fitted with a vacuum part spring operated, rod (Ref.5.7) is muni of 2 nuts (Ref.5.9) in its bout which allows an inductive detector.



5 USE

5.1. Functional checks

After installation, before using the valve or maintenance work:

- Clean the seal gasket and the seating of the seals.

- You should check that the vacuum and/or weight-operated pressure valve can definitely perform all its travel and redescend by gravity to closed position.

Overflow of tank into the valve

<u>In case of overflow of the tank into the valve</u>:

HALT PRODUCTION, it is essential to clean the interior of the valve and the seal gaskets. Flooding of the valve no longer protects the installation from the risk of vacuum and overpressure.

RISK OF DESTRUCTION OF THE TANK!!

5.2. Adjustment

Adjustments are reserved for the manufacturer of the documented device.

Contact SERVINOX or your distributor.

6 SERVICING AND MAINTENANCE

6.1. General

The equipment requires maintenance to make sure it functions correctly.

An inspection must be carried out at regular intervals. There should be an initial inspection interval of six months.

Certain properties of fluids (corrosive, aggressive, abrasive, residues, viscosity, etc) and certain environmental conditions (climate, pollution, etc) may require a reduction of these inspection intervals.

SERVINOX supplies the spare parts for proper maintenance and the warranty on the equipment. Specify the production number and the product reference for all orders.

We keep a store of sachets of wear parts (seals, etc) and we recommend that you keep a few sachets in stock for quick jobs.

You can contact SERVINOX for all advice about maintenance of the device.

6.2. Inspections and servicing

The minimum points to inspect are:

- The condition of the seals
- The absence of impurities in the valve and between the seating surfaces
- The tightness of the assemblies

Required periodic maintenance:

Every 6 months:

- Internal cleaning of equipment

Every year:

- Change the seals (with installation empty):
  - Weight-operated vacuum: clamp seal and valve seal
  - Spring-operated vacuum: clamp seal and valve seal
  - Cleaning nozzle: clamp seal and flat seal

You are advised to check the compatibility of your products with the seals and materials before using them.

We advise you to enter all the maintenance and test operations carried out on the installation in a form of this type:

Date	Company	Name of the worker	Signature
PREVENTIVE MAINTENANCE			
Operations		**Other, Comments**	
CHECKS ON CORRECT FUNCTIONING AND GOOD CONDITION			
Operations		**Other, Comments**	

The workers

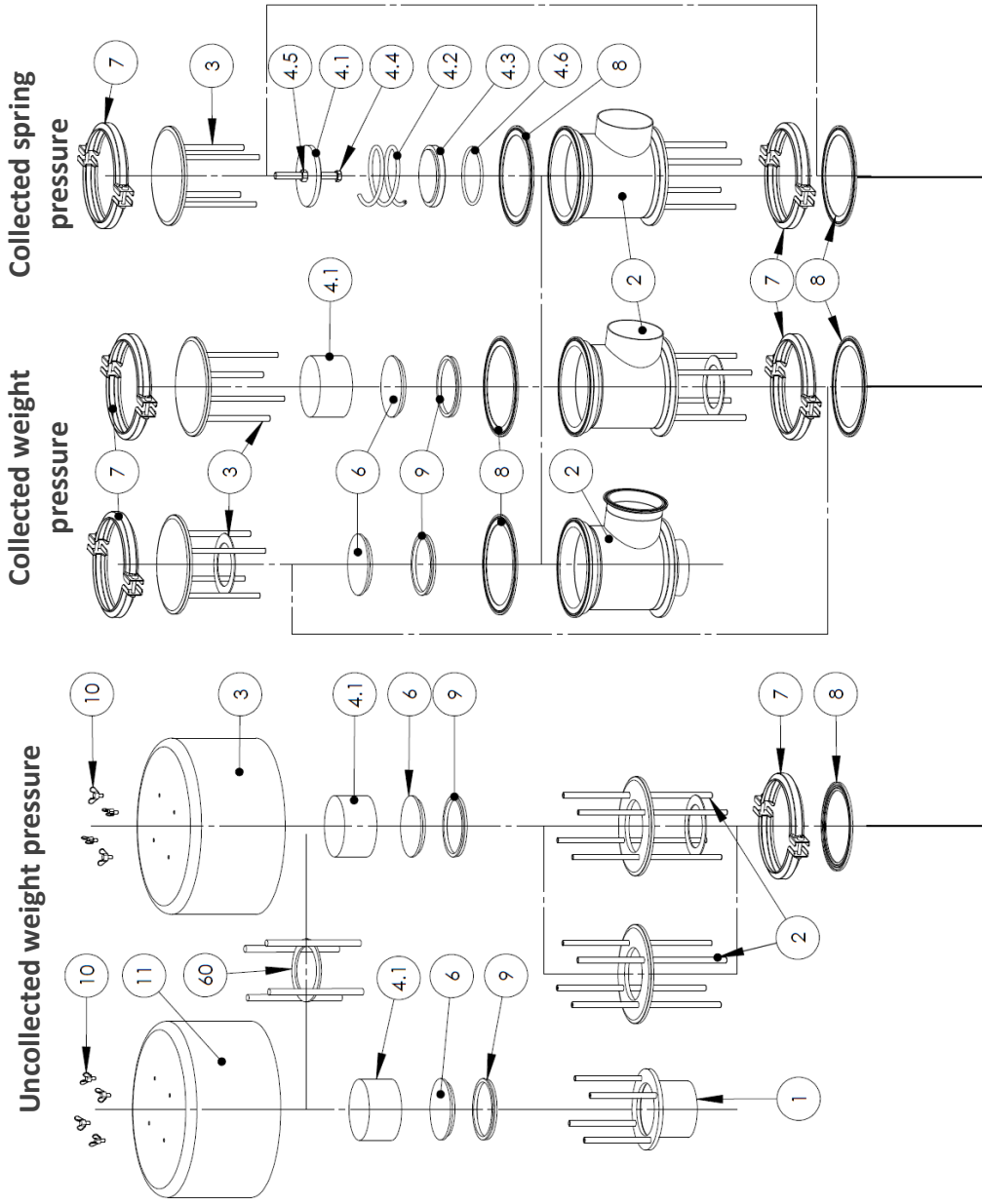
The work described below should be carried out by qualified and experienced persons.

The personnel must be fitted with gloves, helmet, and safety shoes.

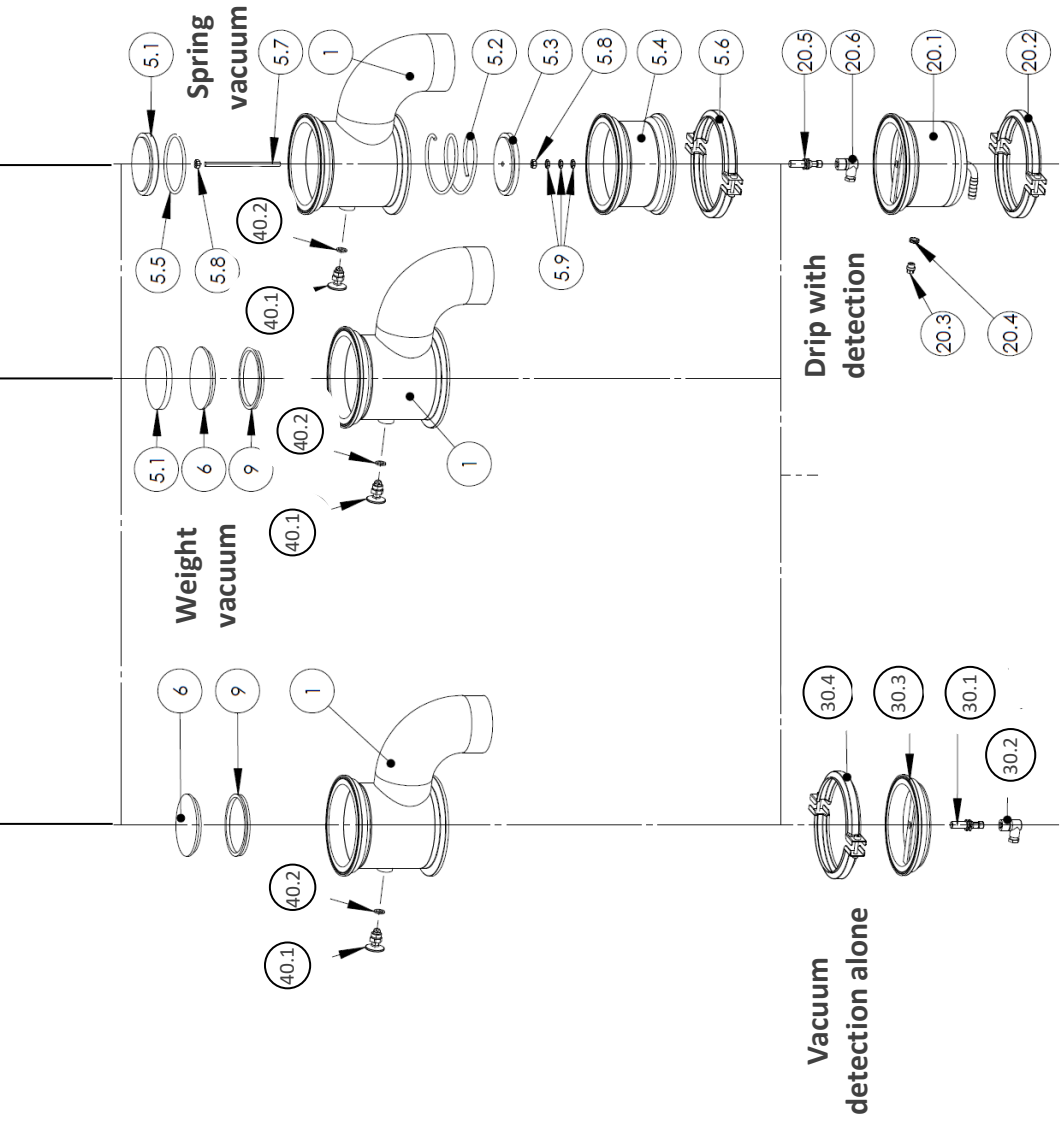
6.3. Maintenance operations

SEE THE NEXT PAGE

Exploded view (STANDARD)



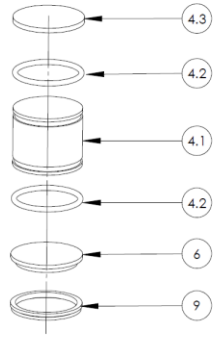
Exploded view (STANDARD)



Exploded view (ATEX OPTION)

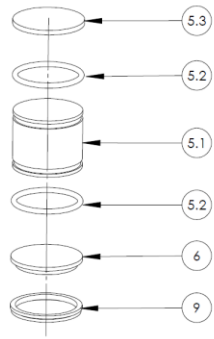
Pressure with or without weight calibration

(ATEX version)



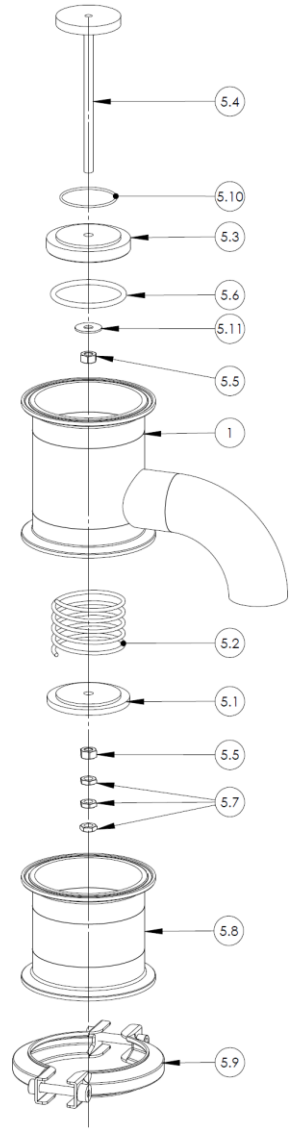
Vacuum with or without weight calibration

(ATEX version)



Spring vacuum valve

(ATEX version)



Parts list pressure

Pressure WEIGHT UNCOLLECTED

STANDARD		ATEX	
REF	**DESCRIPTION**	**REF**	**DESCRIPTION**
1	Uncollected pressure outlet flange (BGC)	1	Uncollected pressure outlet flange (BGC)
2	Uncollected pressure outlet flange (BGA)	2	Uncollected pressure outlet flange (BGA)
3	Cap (BGA)	3	Cap (BGA)
4.1	Calibrated pressure weight	4.1 4.2 4.3	Calibrated weight O-ring Chock PTFE+15% graphite
6	Stainless valve	6	Valve PTFE+15% graphite
7	Clamp collar	7	Clamp collar
8	Clamp seal	8	Clamp seal
9	V-ring seal	9	V-ring seal
10	Wing screw	10	Wing screw
11	Cap (BGC)	11	Cap (BGC)
60	Uncollected pressure stop	60	Uncollected pressure stop

Pressure WEIGHT COLLECTED

STANDARD		ATEX	
REF	**DESCRIPTION**	**REF**	**DESCRIPTION**
2	Recovery chamber	2	Recovery chamber
3	Blank plate	3	Blank plate
4.1	Calibrated pressure weight	4.1 4.2 4.3	Calibrated weight O-ring Chock PTFE+15% graphite
6	Stainless valve	6	Valve PTFE+15% graphite
7	Clamp collar	7	Clamp collar
8	Clamp seal	8	Clamp seal
9	V-ring seal	9	V-ring seal

Pressure SPRING COLLECTED

STANDARD and ATEX	
REF	**DESCRIPTION**
2	Recovery chamber
3	Blank plate
4.1	Calibrated pressure weight
4.2	Spring
4.3	Stainless valve (STANDARD) or PTFE +15% graphite (ATEX)
4.4	Screw
4.5	Nut
4.6	Valve seal
7	Clamp collar
8	Clamp seal

Parts list VACUUM

Vacuum WEIGHT

STANDARD		ATEX	
REF	**DESCRIPTION**	**REF**	**DESCRIPTION**
1	Body with elbow	1	Body with elbow
5.1	Vacuum calibrated weight	5.1 5.2 5.3	Calibrated weight O-ring Chock PTFE+15% graphite
6	Stainless valve	6	Valve PTFE+15% graphite
9	V-ring seal	9	V-ring seal

Cleaning option

STANDARD / ATEX	
REF	**DESCRIPTION**
40.1	Cleaning nozzle
40.2	Flat seal

Vacuum SPRING

STANDARD		ATEX	
REF	**DESCRIPTION**	**REF**	**DESCRIPTION**
1	Body with elbow	1	Body with elbow
5.1	Stainless valve	5.3 5.4 5.10	Valve PTFE +15% graphite Rod Rod seal
5.2	Spring	5.2	Spring
5.3	Spring guide	5.1	Spring guide
5.4	Cap	5.8	Cap
5.5	Valve seal	5.6	Valve seal
5.6	Clamp collar	5.9	Clamp collar
5.7	Rod	5.11	Washer
5.8	Nut	5.5	Nut
5.9	Bottom nut	5.7	Bottom nut

Option DETECTION ONLY

STANDARD		ATEX	
REF	**DESCRIPTION**	**REF**	**DESCRIPTION**
30.1	Inductive detector	30.1	Inductive detector
30.2	Connector	30.3	Detection cap
30.3	Detection cap	30.4	Clamp collar
30.4	Clamp collar		

Options INSECT-PROOF DRIP COLLECTOR with/without DETECTION

STANDARD		ATEX	
REF	**DESCRIPTION**	**REF**	**DESCRIPTION**
20.1	Insect-proof drip collector	20.1	Insect-proof drip collector
20.2	Clamp collar	20.2	Clamp collar
20.3	Gland	20.3	Gland
20.4	Gland locknut	20.4	Gland locknut
20.5	Inductive detector	20.5	Inductive detector
20.6	Connector	20.6	Connector

Dismantling the valve

WEIGHT-OPERATED PRESSURE

Weight-operated pressure BGA:

1) Unlock the wing screws (Ref.10) holding the cap.

2) Remove the cap (Ref.3).

3) Withdraw the uncollected pressure stop (Ref.60).

4) Remove the calibrated pressure weight (Ref.4.1).

5) Carefully remove the pressure valve (Ref.6) with its seal (Ref.9).

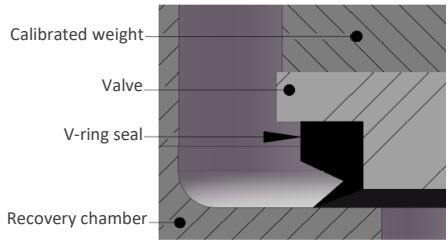
6) Remove the clamp collar (Ref.7).

7) Remove the uncollected pressure outlet flange (Ref.2).

8) Remove the clamp seal (Ref.8).

Clean the valve and its seals; check the condition of the seals (Ref.8 and Ref.9) and replace the seals if necessary.

BE CAREFUL when fitting the V-Ring seal, see illustration below.



Proceed in the reverse order for refitting the valve

Check before refitting the cap (Ref.3): that the weight-operated pressure valve can definitely perform all its travel and redescend by gravity to closed position.

Weight-operated pressure BGC:

1) Unlock the wing screws (Ref.10) holding the cap.

2) Remove the cap (Ref.11).

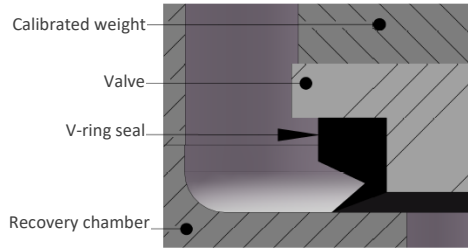
3) Withdraw the uncollected pressure stop (Ref.60).

4) Remove the calibrated pressure weight (Ref.4.1).

5) Carefully remove the pressure valve (Ref.6) with its seal (Ref.9).

Clean the valve and its seal; check the condition of the seal (Ref.9) and replace the seal if necessary.

BE CAREFUL when fitting the V-Ring seal, see illustration below.



Proceed in the reverse order for refitting the valve

Check before refitting the cap (Ref.11): that the weight-operated pressure valve can definitely perform all its travel and redescend by gravity to closed position.

Weight-operated pressure BGB and BGD:

1) Remove the top clamp collar (Ref.7) holding the blank plate (Ref.3).

2) Remove the blank plate (Ref.3).

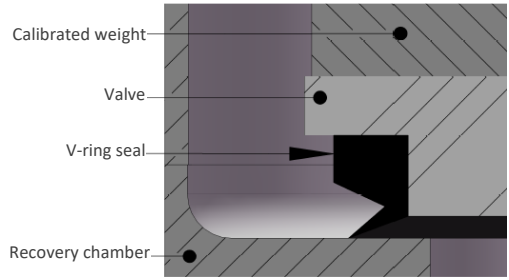
3) Remove the clamp seal (Ref.8).

4) Remove the calibrated weight (Ref.4.1).

5) Carefully remove the pressure valve (Ref.6) with its seal (Ref.9).

Clean the valve and its seals; check the condition of the seals (Ref.8 and Ref.9) and replace the seals if necessary.

BE CAREFUL when fitting the V-Ring seal, see illustration below.



Proceed in the reverse order for refitting the valve

Check before refitting the cap (Ref.3): that the weight-operated pressure valve can definitely perform all its travel and redescend by gravity to closed position.

Dismantling the valve
SPRING-OPERATED PRESSURE

Spring-operated pressure BGB and BGD:

1) Remove the top clamp collar (Ref.7) holding the blank plate (Ref.3).

BE CAREFUL ABOUT THE COMPRESSED SPRING.

2) Remove the blank plate (Ref.3) then the assembly: spring guide (Ref.4.1), screw (Ref.4.4) and nut (Ref.4.5).

Calibrated pressure; DO NOT REMOVE from the blank plate (Ref.3) the assembly: spring guide (Ref.4.1), screw (Ref.4.4) and nut (Ref.4.5).

3) Remove the seal (Ref.8).

4) Remove the spring (Ref.4.2).

5) Carefully remove the pressure valve (Ref.4.3) with its seal (Ref.4.6).

Clean the valve and its seals; check the condition of the seals (Ref.8 and Ref.4.6) and replace the seals if necessary.

Proceed in the reverse order for refitting the valve.

BE CAREFUL when refitting the assembly; you should compress the spring when fitting the blank plate (Ref.3) then tighten the clamp collar (Ref.7).

Check that the valve (Ref.4.3) is in the centre of the valve seating and that the valve seal (Ref.4.6) is not visible.

Dismantling the valve
WEIGHT-OPERATED VACUUM

Weight-operated vacuum BGA and BGB:

1) Proceed to dismantling the pressure part first.

2) Remove the options.

3) Remove the intermediate clamp collar (Ref.7).

4) BGA: Remove the uncollected pressure outlet flange (Ref.2).

BGB: Remove the recovery chamber (Ref.2).

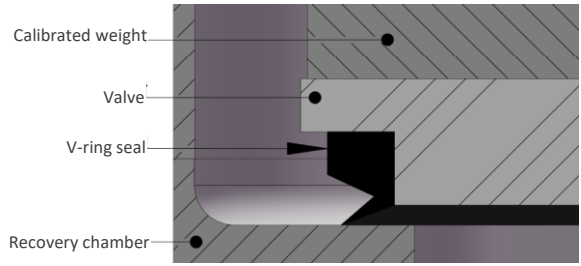
5) Remove the seal (Ref.8).

6) Carefully remove the weight (Ref.5.1).

7) Withdraw the vacuum valve (Ref.6) with its seal (Ref.9).

Clean the valve and its seals; check the condition of the seals (Ref.8 and Ref.9) and replace the seals if necessary.

BE CAREFUL when fitting the V-Ring seal, see illustration below.



Proceed in the reverse order for refitting the valve

Check that the weight-operated vacuum valve can definitely perform all its travel and redescend by gravity to closed position.

Weight-operated vacuum BGE:

1) Unscrew the clamp collar (Ref.7) around the blank plate (Ref.3).

2) Remove the blank plate (Ref.3).

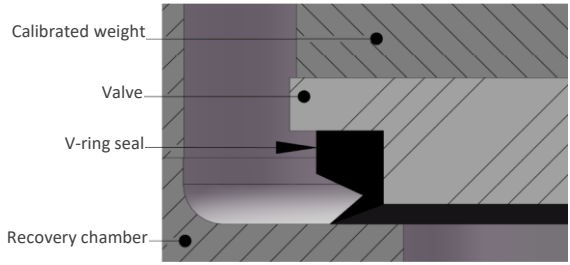
3) Remove the seal (Ref.8).

4) Remove the calibrated pressure weight (Ref.5.1).

5) Carefully remove the vacuum valve (Ref.6) with its seal (Ref.9).

Clean the valve and its seals; check the condition of the seals (Ref.8 and Ref.9) and replace the seals if necessary.

BE CAREFUL when fitting the V-Ring seal, see illustration below.



Proceed in the reverse order for refitting the valve

Check that the weight-operated vacuum valve can definitely perform all its travel and redescend by gravity to closed position.

Dismantling the valve

SPRING-OPERATED VACUUM

Spring-operated vacuum BGA and BGB:

1) Proceed to dismantling the pressure part first.

2) Remove the options: drip collector and detector first

3) Unscrew the intermediate clamp fixing collar (Ref.7).

4) BGA: Remove the uncollected pressure outlet flange (Ref.2).

BGB: Remove the recovery chamber (Ref.2).

5) Unscrew the bottom fixing collar (Ref.5.6) and remove the vacuum cap (Ref.5.4)

Measure and note the compression size of the spring between the two support surfaces of the spring.

6) Unscrew the nuts (Ref.5.9 and 5.8) and remove the spring guide (Ref.5.3)

BE CAREFUL ABOUT THE COMPRESSED SPRING.

7) Remove the spring (Ref.5.2).

8) Remove the valve assembly (Ref.5.1), rod (Ref.5.7), nut (Ref.5.8) and seal (Ref.5.5).

Clean the valve and its seals; check the condition of the seal (Ref.5.5) and replace the seal if necessary.

Proceed in the reverse order for refitting the valve.

Make sure you keep to the compression size previously noted when removing it.

Check that the valve (Ref.5.5) is in the centre of the valve seating and that the valve seal (Ref.5.1) is not visible.

Spring-operated vacuum BGE:

1) Unscrew the clamp collar (Ref.9) around the blank plate (Ref.3).

2) Remove the blank plate (Ref.3).

3) Remove the clamp seal (Ref.8).

4) Unscrew the bottom fixing collar (Ref.5.6) and remove the vacuum cap (Ref.5.4)

Measure and note the compression size of the spring between the two support surfaces of the spring.

5) Unscrew the nuts (Ref.5.9 and 5.8) and remove the spring guide (Ref.5.3) ***ATTENTION SPRING UNDER PRESSURE.***

6) Remove the spring (Ref.5.2).

7) Remove the valve assembly (Ref.5.1), rod (Ref.5.7), nut (Ref.5.8) and seal (Ref.5.5).

Clean the valve and its seals; check the condition of the seal (Ref.5.5) and replace the seals if necessary.

Proceed in the reverse order for refitting the valve.

Make sure you keep to the compression size previously noted when removing it.

Check that the valve (Ref.5.5) is in the centre of the valve seating and that the valve seal (Ref.5.1) is not visible.

Dismantling the cleaning nozzle

1) Remove the supply cleaning connection by the mini clamp collar

2) Unscrew the nozzle (Ref.40.1).

3) Withdraw the seal (Ref.40.2).

Clean the nozzle and the seal; check the condition of the seal or replace the seal if necessary.

Proceed in the reverse order for refitting the nozzle.

Dismantling the insect-proof drip collector

1) Remove the clamp collar (Ref.20.2) and remove the collector (Ref.20.1).

For a vacuum detector with insect-proof drip collector, it is possible of add the detector (Ref.20.5) with its connector (Ref.20.6).

The detector cable is held by the gland (Ref.20.3 and 20.4).

Proceed in the reverse order for refitting the collector, then check for correct adjustment of the detector.

When refitting, the vacuum detector must only be adjusted with pressurised equipment.

Dismantling the detection only

1) Remove the clamp collar (Ref.30.4) and remove the sensor support (Ref.30.3).

2) Measure and note the size of adjustment of the detector.

3) Unscrew the nuts holding the inductive detector (Ref.30.1) to withdraw the detector.

Proceed in the reverse order for refitting, then check for correct adjustment of the detector.

When refitting, the vacuum detector must only be adjusted with pressurised equipment.

7 DIAGNOSTIC AID

The table below is a diagnostic aid and is intended to help you remedy simple functional problems.

PROBLEM	POSSIBLE CAUSE	REMEDY
The vacuum valve does not start	- Seals frozen - Grille of the insect-proof drip vacuum collector blocked - Blocking of the valve by a product from the tank during an overflow	> Draughtproofing or insulation of the equipment > Clean the grille of the insect-proof drip collector > Clean the interior of the equipment and its seals
The spring pressure valve does not start	- Adjust the modified spring calibration - Seals frozen . - Seal worn	> Contact SERVINOX to adjust the calibration > Draughtproofing or insulation of the equipment > Replace seal
Premature start of the spring pressure valve	- Adjust the modified spring calibration - Seal worn	> Contact SERVINOX to adjust the calibration > Replace seal
Detection of vacuum opening not functional	- Electrical fault - Poor adjustment of the detector	> Cable bare, sealing fault > Proceed to new adjustment and check the tightness of the assemblies
Leak from the cleaning tube	Seal worn	> Replace seal
Efficiency of cleaning mediocre	Nozzle blocked	> Clean the interior and exterior of the cleaning nozzle.

8 WARRANTY

Unless otherwise stated in the proposal, the device is guaranteed ***12 months as from the date of delivery***.

After an examination in our factory, the parts considered as defective will be replaced at our expense.

All replacement of the device's components (wear parts, seal, etc) must be replaced by SERVINOX original parts.

The warranty does not cover damage due to:

- Poor fitting, inappropriate or abusive utilisation
- An accident or incorrect installation
- Modification of the equipment
- Leaks following the passage of impurities will not be taken into account
- Required maintenance not performed

The warranty on our products covers the free repair of parts returned when proved that they have become unusable prematurely, following a manufacturing or material fault.

We are not bound to any compensation or any other obligation of this kind.

This equipment has been inspected before leaving the factory.

This equipment has been certified as having been inspected and authorised for sale.

Notes

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